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## OBITUARY.

The Council regret that they have to announce the loss by death of the following Fellows and Associates during the past year :—

Fellows :—Antoine d'Abbadie.
J. W. Aldridge.
J. T. Barber.
Adolphe de Boë.
Frederick Brodie.
L. P. Casella.
H. B. Chamberlin.
J. J. Cole.
Samuel Cottam.
Rev. J. E. Cross.
T. G. E. Elger.*
Rev. Alexander Freeman.
William Godward.
Adam Hilger.
Rev. T. Mackereth.*
Joseph Maguire.
Albert Marth.
J. C. Robertson.
William Roxburgh.
Commander J. M. Share.
Charles Stewart.
E. J. Stone.
W. R. Vines.
C. C. Walker.

Associates :—Wilhelm Döllen.
F. A. T. Winnecke.

ANTOINE THOMPSON D'ABBADIE was born in Dublin, of French parents, in the year 1810. His family returned to France in 1818, where he was educated. He early devoted himself to the study of geography, geodesy, and terrestrial magnetism. In 1836 August he determined the magnetic inclination at Paris. In 1837 he went to Olinda, in Brazil, where he studied the diurnal variations of the needle between the magnetic and terrestrial equators. The details of these observations were not published till 1873, when they appeared in a memoïr, entitled "Observations relatives à la Physique du Globe faites au Brésil et en Ethiopie." From 1837 to 1839 he was engaged with his brother, Michel Arnauld d'Abbadie, in making his first exploration of Ethiopia, and a second voyage was undertaken in the period 1839 to 1849. It is certain, however, that for some time in 1839 he was in Paris, as he there made a second determination of the magnetic inclination, to compare with that made three years previously. The results of these twelve years' geographical and geodetical work were published in 1873, under the title "Géodésie d'Ethiopie, ou Triangulation d'une Partie de la Haute-Ethiopie, exécutée selon des Méthodes Nouvelles."

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* Obituaries published 1897 Annual Report.

What characterised the work of d'Abbadie was his method of observation. He had recognised how little precision attached to independent determinations of geographical positions—that is to say, those which are determined directly from observations of stars by field instruments, of which the best are exact only to about one or two kilometres. He conceived the plan, entitled "Géodesie Expeditive," of forming a network of triangles, more or less well proportioned, which included all the natural signal points that could be seen from the improvised stations on the heights where the party halted. This method gives a precision ten times greater than that of independent positions, and affords a valuable means of verification. Thus a connected chain of triangles was formed from the shores of the Red Sea to the confines of the country of Kaffa. This network included 8° 32′ in latitude and 3° in longitude, and furnished the positions of 857 points, confirmed also by the absolute determinations of a great number of latitudes, of longitudes from occultations, and of altitudes barometrically or hypsometrically determined. These observations were for the most part made with a small theodolite, which he had improved by placing the telescope parallel to the horizontal limb. This telescope, turning about an axis, can be pointed, by means of a prism before the object-glass, upon every object in azimuth or altitude. To this new form of geodetic instrument he gave the name of "Aba."

In the year 1851 d'Abbadie went to Frederiksvaern, in Norway, to observe the solar eclipse of that year, when he made some polariscopic observations of the prominences and corona, employing a 3·9-inch telescope, and power of 52, with a quartz plate and double-image prism. In 1860 he went to Spain, and observed the solar eclipse at Briviesca, again making polariscopic observations. In 1867 he observed at Algiers the annular eclipse of March 6. In 1882 he was the chief of the expedition sent out by the Académie des Sciences to Haiti to observe the Transit of *Venus*. In 1874 d'Abbadie sent a communication to the *Monthly Notices*, calling attention to an error he had discovered in the Radcliffe Catalogue. He erected an observatory at his Château d'Abbadia (Basses-Pyrénées), where he devoted himself to investigating the periodic variations of the deviation of the vertical.

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The Geodesy of Ethiopia was the greatest work of D'Abbadie's life, and was a contribution to geographical science of the highest value. For though his results were some time ago seriously questioned, more recent researches have triumphantly established his triangulation, and proved the trustworthy character of the work done by him in this remote region. But D'Abbadie was also illustrious by reason of his varied researches, contained in numerous memoirs and notes communicated to the "Académie des Sciences," the "Société de Géographie," and to many other scientific societies, on astronomy, geodesy, physics, meteorology, geography, ethnography, and philology. The citation of the following titles will indicate the nature of some of his more important researches: "Études grammaticales sur la Langue Euskarienne" (1836); "Sur la Langue Kamtiga" (1841); "Sur la Langue Saho" (1843); "Découverte de la Source du Gibé ou Uma" (1847); "Résumé des Voyages faits par MM. Antoine et Arnauld d'Abbadie" (1849); "Note sur le Haut Fleuve Blanc" (1849); "Documents sur la Géographie du Bassin du Nil" (1852); "Sur les Tremblements de Terre et les Mouvements du Sol" (1852); "Mémoire sur le Tonnerre en Éthiopie" (1858); "Résumé Géodesique des Positions déterminées en Éthiopie" (1859); "Catalogue raisonné de MSS. Éthiopiens, comprenant 234 MSS." (1859); "Description d'un Instrument pour la Pratique de la Géodesie Expéditive" (1863); "Sur une Nouvelle Lunette Zénithale" (1865); "Études sur la Verticale" (1872); "Recherches sur la Verticale" (1882); "Les Fluctuations des Latitudes Terrestres" (1892); "Géographie de l'Éthiopie" (1883), &c. &c.

M. d'Abbadie belonged to the Institut de France for forty years, and for nearly twenty years he had been a member of the Bureau des Longitudes. Simple in his manner and kind-hearted in his nature, he was ever ready to give assistance to those who appealed to him for advice, and his loss is deeply regretted by all who were favoured with his acquaintance. He died in Paris 1897 March 19, at the age of eighty-seven years, signalising his love for Astronomy by bequeathing an estate in the Pyrenees, yielding 40,000 francs a year, to the Académie des Sciences, on condition of its publishing, within fifty years, a General Catalogue of Stars.

He was elected a Fellow of the Society on 1895 November 8.

JOHN WILLIAM ALDRIDGE was born in London on 1824 August 24. His interest in astronomy was first roused by observing Halley's Comet at its return in 1835, but he never undertook any practical work in the science. He had no occupation, and devoted himself to extensive reading, not only in astronomy but also in law and medicine, and he was interested in cuneiform inscriptions. He was a regular attendant at the meetings of the Society when his health permitted. He died on 1897 December 11.

He was elected a Fellow of the Society 1890 May 9.